

PTO 06- [5056]

Korean Patent

20-0296982

**RESIN NEEDLE**

[Suji Chim]

Tae-Uoo Yoo

UNITED STATES PATENT AND TRADEMARK OFFICE

Washington, D.C.

June 2006

Translated by: Schreiber Translations, Inc.

Country : Korea  
Document No. : 20-0296982  
Document Type : Utility  
Language : Korean  
Inventor : Tae-Uoo Yoo  
Applicant : Tae-Uoo Yoo  
IPC : A 61 H 39/08  
Application Date : August 28, 2002  
Publication Date : November 22, 2002 (3/28/02)  
Foreign Language Title : Suji Chim  
English Title : RESIN NEEDLE

Specification

1. Title of the invention

RESIN NEEDLE

2. Brief description of the figures

Figure 1 is a disassembled oblique view showing a separated state before the present invention is manufactured.

Figure 2 is an oblique view showing an assembled and manufactured state of the present invention.

Figure 3 is an assembled cross section showing a state before the present invention is manufactured.

Figure 4 is a cross section showing a state in which the present invention is assembled and pressed.

Figure 5 is an enlarged cross section showing A part of /2 the present invention.

Figure 6 is an illustrative diagram showing a state in which a surgical operation is performed while holding the present invention by the hand.

---

<sup>1</sup> Numbers in the margin indicate pagination in the foreign text.

Figure 7 is an illustrative diagram showing a state in which a surgical operation is performed by inserting the present invention into a needle tube.

<Explanation of symbols of the main parts of the figures>

- 1 Resin needle
- 10 Needle rod
- 11 Tip
- 12 Grip part
- 20 Pipe type handle part
- 21 Press part

### 3. Detailed explanation of the invention

(Purpose of the invention)

(Technical field of the invention and prior art of the field)

The present invention pertains to a resin needle. In particular, the present invention pertains to a very convenient resin needle that inserts a pipe type handle part into an upper grip part of a needle rod and forms press parts by pressing both sides of the upper end, so that the economical efficiency is realized, not to mention the manufacturing process is easy and the cost is effectively reduced, and a surgical operation may be performed by inserting into a needle tube or may be directly performed by holding the pipe type handle part.

In general, the resin needle has a diameter of within 0.2 mm and a length of about 1.5 cm, and since its size was very small and fine, there was a difficulty in performing a surgical operation while holding it by the hand. In order to solve the above-mentioned problem, there was a resin needle in which a number of bent parts were formed at the upper end of a needle rod in which a tip was formed and a grid part wound at a fixed length was inserted into the above-mentioned needle rod and adhered and fixed. However, the manufacturing process of the bent parts and the grip part in a wound state was complicated, and the inferiority rate was high, and the economical efficiency was lowered by the increase of the cost due to the complicated process. Thus, in actuality, an economical resin needle that is more easily manufactured, is strong, and is conveniently used has been in demand.

(Technical problems to be solved by the invention)

The present invention has been created to solve the above-mentioned conventional problems, and the purpose of the present invention is to realize an economical efficiency by being able to reduce the product cost through an easy manufacturing process of a needle grip part. The present invention is a resin needle characterized by the fact that in a needle having a tip at the lower end of a needle rod and a grip part at the upper end, a

pipe type handle part is inserted into the upper end grip part of the above-mentioned needle rod; and press parts are formed at both sides of the upper end of the above-mentioned pipe type handle part by pressing. Since the press parts are formed by pressing both sides of the upper end of the above-mentioned pipe type handle part, the manufacturing process that inserts the above-mentioned pipe type grip part into the needle rod and presses it is easy, so that the inferiority rate is low and the cost reduction is effective, thereby realizing the economical efficiency. An automatic surgical operation may be performed after inserting the above-mentioned resin needle into a needle tube, and a direct surgical operation may also be performed while holding the pipe type handle part of the resin needle. Thus, the resin needle of the present invention is very convenient.

(Constitution and operation of the invention)

In a needle having a tip (11) at the lower end of a needle rod (10) and a grip part (12) at the upper end, a pipe type handle part (20) is inserted into the upper end grip part (12) of the above-mentioned needle rod (10), and press parts (21) are formed at both sides of the upper end of the above-mentioned /3 pipe type handle part (20) by pressing, so that a resin needle (1) is constituted.

"100" is a skin surface, and "200" is a needle tube.

In the resin needle (1) of the present invention with the above constitution, the pipe type handle part (20) is inserted into the upper end grid part (12) of the needle rod (10) in which the tip (11) is formed at the lower end and the grip part (12) is formed at the upper end, and the press parts (21) are formed by pressing both sides of the upper end of the pipe type handle part (20). At the same time, both sides of the grid part (12) inside the pipe type handle part (20) are pressed and fixed in a body so that pressed bent parts (B) may be formed. Thus, the manufacture is simple. At a time of a surgical operation, as shown in Figure 6, the resin needle is applied to [illegible] formed on the skin surface (100) to be surgically operated while holding the pipe type grid part (20) of the resin needle (1), or as shown in Figure 7, after the resin needle (1) is inserted into the needle tube (200) and the needle tube (200) is positioned on the skin surface (100) to be surgically operated, if an ascended weight is released, the resin needle (1) is applied by the drop force of the weight.

(Effects of the invention)

As mentioned above, in the resin needle (1) of the present invention, the pipe type handle part (20) separately manufactured is inserted into the upper end grid part (12) of

the needle rod (10), and the press parts (21) are formed by pressing both sides of the upper end of the above-mentioned pipe type handle part (20). At the same time, both sides of the grid part (12) of the needle rod (10) are also pressed and fixed in a body so that pressed bent parts (B) may be formed. Thus, the manufacturing process is simple, and there is no inferiority generation rate. Also, since the product cost is reduced by an easy manufacture, the economical effect is very high. At a time of a surgical operation, as shown in Figure 6, the resin needle may be directly applied to the skin surface (100) while holding the pipe type grid part (20) of the resin needle (1), or as shown in Figure 7, the resin needle may also be inserted into the needle tube (200) and applied to the skin surface (100). Thus, when the resin needle is used for disposal, since the manufacture cost is low, the resin needle can be replaced with a hygienically new one without a burden, and the manufacture is very simple. Accordingly, the present invention is useful.

#### 4. Claim

1. A resin needle (1), characterized by the fact that in a needle having a tip (11) at the lower end of a needle rod (10) and a grip part (12) at the upper end, a pipe type handle part (20) is inserted into the upper end grip part (12) of the

above-mentioned needle rod (10); and press parts (21) are formed at both sides of the upper end of the above-mentioned pipe type handle part (20) by pressing.

// Insert Figures 1-7 //

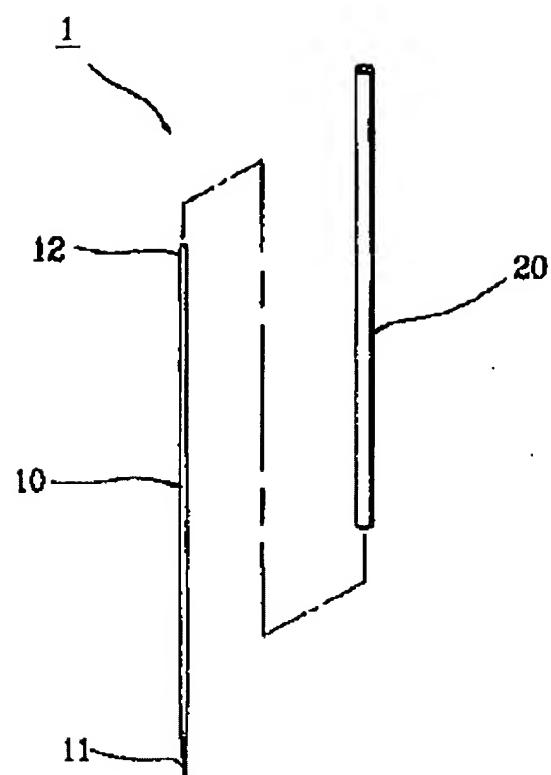
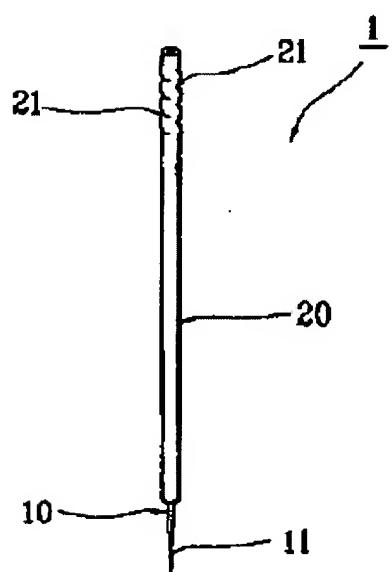


FIG2



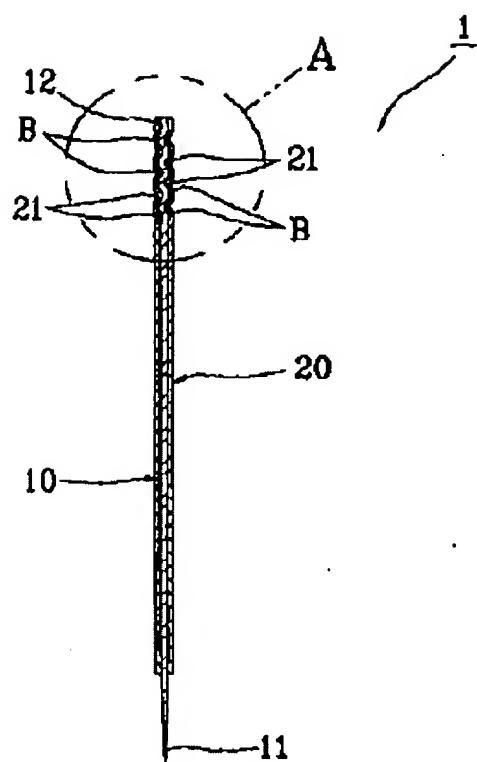


FIG. 5

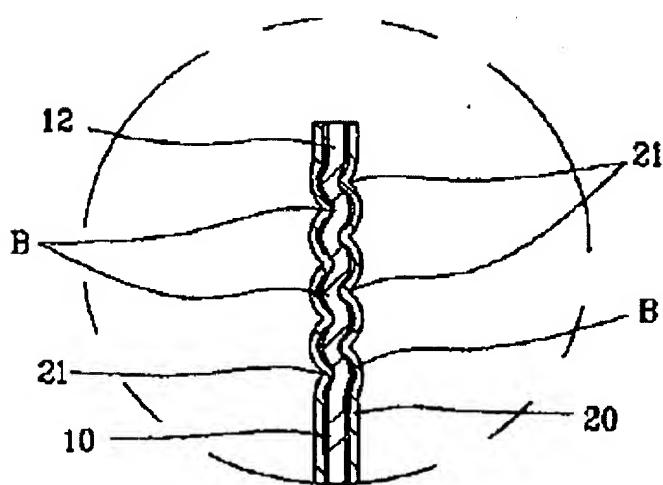


FIG. 6

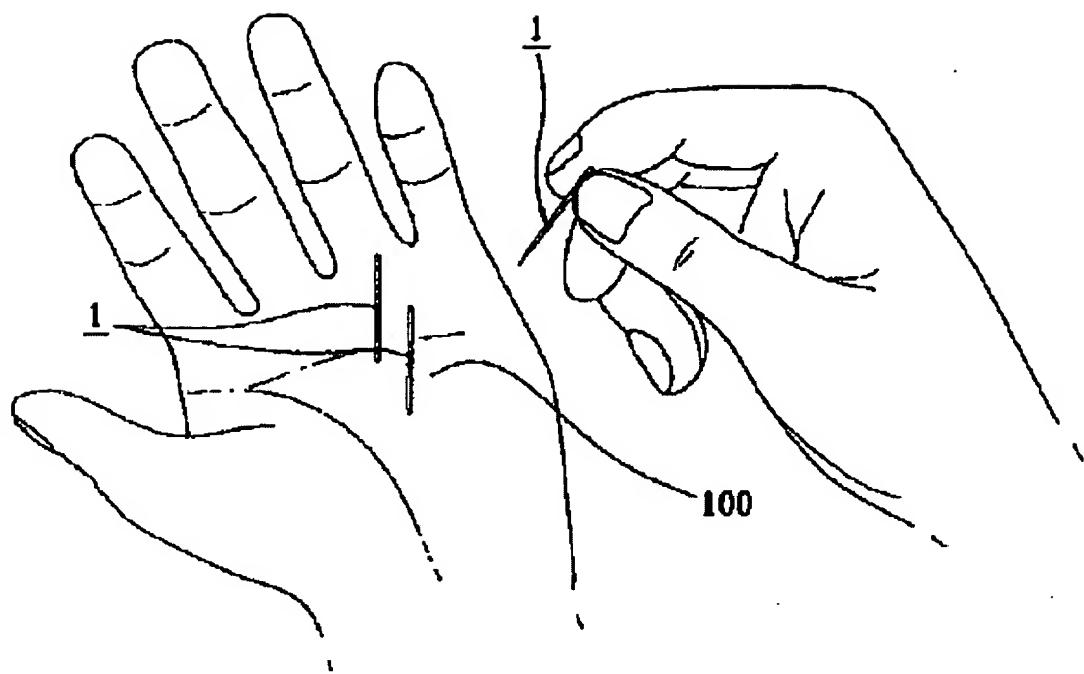


FIG. 7

